



Wesolok D

more dispersible large-particle alumina for ceramic fiber bonding

Why Wesolok D?

- **Withstands higher temperatures** - High purity alumina provides for low reactivity and can be used to replace colloidal silica where greater refractoriness at use temperatures is required.
- **No cristobalite** – Completely cristobalite free, eliminating a common source of thermal shrinkage problems and health-related concerns.
- **Flocs with cationic starch** – Has a moderate cationic charge which works well with all starches, and especially well with a cationic starch like **Westar+**.

Typical Properties

Appearance	White powder
pH (20% in water)	3 - 5
Loose Density	40 – 60 lbs/ft ³
Al ₂ O ₃ , wt. %	80
Na, ppm	20
Surface Area, m ² /g	140*
Crystallite size, nm	18
Bulk particle size, μm	50
Concentration limit, sol	30 wt%**

* After Activation (3 hours, 550°C)

** Higher concentrations will gel

Storage and Handling

Wesolok D must be stored dry and protected from moisture. Under these conditions **Wesolok D** has an infinite shelf life.

Wesolok D alumina binder is a more dispersible, larger particle size colloidal alumina than regular **Wesolok**. It is a high purity boehmite (alumina mono-hydrate) powder ready for dispersion in water at up to 30% concentration to give stable colloidal alumina sols for bonding ceramic fibers.

How to Use Wesolok D for fiber bonding

Wesolok D should be flocced with cationic corn starch, like **Westar+**. Start with a balanced ratio of 6% starch and 6% alumina based on weight of fiber, and adjust as needed.

Typical Formulation:

		<u>with filler</u>
Water, Gallons	50	50
Refractory Fiber, lbs	8	8
Alumina filler, lbs	0	3
Westar+ Starch, lbs.	0.5	0.7
Wesolok D, lbs	0.6	0.8

Follow above order adding **Westar+** dry and mix for ten minutes to disperse and swell starch before adding **Wesolok D**. Mix an additional 15 minutes to complete floccing before forming. Dry at 250°F (120°C). For burning out starch, 750°F (400°C) is suggested as this will also remove the water of hydration from the alumina binder to set it permanently.

Packaging, and Safety:

Wesolok D is available in fiber drums, 400 lbs net, loose. Cartons: 50 lbs. net.

Wesolok D is non-toxic. Do not breathe dusts. Dispersions are mildly acidic. Protect eyes from splashes. See SDS for a complete safety discussion.

For a price quote and valuable information on how we can help you improve your vacuum formed products call

WESBOND
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